

IN THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) An apparatus comprising:

an inverse transformer configured to perform an inverse transformation of watermark data from a transform domain into watermark data in a spatial domain, wherein said transform domain is a domain other than the spatial domain, the transform domain watermark data comprising a plurality of transform domain coefficients and the spatial domain watermark data comprising a plurality of spatial domain pixels which represent the watermark data in the spatial domain; and

a combiner configured to receive material into which no watermark data has been embedded, the material being in the spatial domain, the material comprising a plurality of spatial domain pixels, and to combine the pixels of said spatial domain watermark data with the spatial domain pixels of said material in the spatial domain to form watermark data embedded material.

2. (Previously Presented) The apparatus of claim 1, wherein said inverse transformer is configured to receive said transform domain watermark data comprising a plurality of transform domain coefficients and to transform said transform domain watermark data into spatial domain data comprising a plurality of spatial domain pixels which form the spatial domain watermark data.

3. (Canceled)

4. (Previously Presented) The apparatus of claim 2, wherein said material is one or more of audio/visual material and video material.

5. (Previously Presented) The apparatus of claim 2, wherein said material is data material.

6. (Previously Presented) The apparatus of claim 1, wherein said transform domain watermark data comprises a Pseudo Random Symbol Stream modulated by information to embed in the material.

7. (Previously Presented) The apparatus of claim 1, wherein said transform domain watermark data comprises a Universal Material Identifier (UMID).

8. (Previously Presented) The apparatus of claim 1, wherein said material and said spatial domain watermark data both comprise a digital bitmap.

9. (Previously Presented) The apparatus of claim 1, wherein said transform domain watermark data comprises a digital bitmap.

10. (Previously Presented) The apparatus of claim 1, wherein said transform domain watermark data comprises wavelet coefficients and said inverse transformer is an inverse wavelet transformer.

11. (Previously Presented) The apparatus of claim 10, wherein said wavelet coefficients comprise information encoded in coefficients in at least two bands in at least one level.

12. (Previously Presented) The apparatus of claim 1, wherein said transform domain watermark data comprises DCT coefficients and said inverse transformer is an inverse DCT transformer.

13. (Previously Presented) The apparatus of claim 4, wherein said combiner arithmetically combines the pixels of said material and the pixels of said spatial domain watermark data.

14. (Previously Presented) The apparatus of claim 1, further comprising:
a strength adapter configured to adapt the strength of the pixels of said spatial domain watermark data in dependence on the spatial domain pixels of said material,
wherein said combiner is configured to arithmetically combine the spatial domain pixels of said material and said strength adapted pixels of the spatial domain watermark data.

15. (Previously Presented) The apparatus of claim 14, wherein said strength adapter comprises:

a generator responsive to the pixels of said material and configured to generate strength control information; and
a multiplier configured to adapt the magnitude of the pixels of said spatial domain watermark data in accordance with said strength control information to produce said strength adapted spatial domain watermark data.

16. (Previously Presented) The apparatus of claim 15, wherein said material comprises spatial domain material and said generator is configured to generate strength control information responsive to said spatial domain material.

17. (Previously Presented) The apparatus of claim 15, wherein said generator is configured to receive the spatial domain pixels of said material, to analyze each value of said material and to generate strength control information.

18. (Previously Presented) The apparatus of claim 17, comprising:
a strength adapter configured to adapt the strength of the coefficients of said transform domain watermark data in dependence on the spatial domain pixels of said material,

wherein said inverse transformer is configured to transform said strength adapted transform domain watermark data into strength adapted spatial domain watermark data and said combiner is configured to arithmetically combine the pixels of said material and said strength adapted pixels of the spatial domain watermark data.

19. (Previously Presented) The apparatus of claim 18, wherein said strength adapter comprises:

a transformer configured to transform the spatial domain pixels of said material into transform domain material comprising a plurality of transform domain coefficients;

a generator responsive to the coefficients of said transform domain material for and configured to generate strength control information; and

a multiplier configured to adapt the magnitude of the coefficients of said transform domain watermark data in accordance with said strength control information to produce strength adapted transform domain data comprising a plurality of transform domain coefficients.

20. (Currently Amended) The apparatus of claim 19, wherein said generator is configured to receive said transform domain material, to analyze each pixel of said transform domain material and ~~and~~ to generate strength control information.

21. (Previously Presented) A method comprising the steps of:
inverse transforming watermark data from a transform domain into watermark data in the spatial domain, wherein said transform domain is other than the spatial domain, the transform domain watermark data comprising a plurality of transform domain coefficients and the spatial domain watermark data comprising a plurality of spatial domain pixels which represent the watermark data in the spatial domain;
receiving material into which no watermark data has been embedded, the material being in the spatial domain, and the material comprising a plurality of spatial domain pixels;
and
combining the pixels of said spatial domain watermark data with the spatial domain pixels of material to form watermark data embedded material.

22. (Previously Presented) The method of claim 21, wherein prior to the inverse transforming step, performing the step of:
receiving the transform domain watermark data.

23. (Previously Presented) The method of claim 21, wherein the combining step comprises the step of:
arithmetically combining the pixels of said spatial domain watermark data and the spatial domain pixels of said material.

24. (Previously Presented) The method of claim 23, further comprising the step of:
adapting the strength of the pixels of said spatial domain watermark data in
dependence on the spatial domain pixels of said material and outputting strength adapted
spatial domain watermark data, and
wherein the combining step comprises the step of arithmetically combining the pixels
of said strength adapted spatial domain watermark data and the spatial domain pixels of said
material.

25. (Previously Presented) The method of claim 24, wherein the adapting step
comprises the steps of:

generating strength control information; and
adapting the magnitude of the pixels of said spatial domain watermark data in
accordance with said strength control information.

26. (Previously Presented) The method of claim 25, wherein the generating strength
control information step comprises the steps of:

receiving the spatial domain pixels of said material; and
analyzing each pixel of said material.

27. (Canceled)

28. (Previously Presented) The method of claim 21, wherein the said material is one
or more of audio/video material and image material.

29. (Previously Presented) The method of claim 21, wherein the said material is data material.

30. (Currently Amended) A computer readable storage medium encoded with a program for performing the steps of claim 21 when said ~~product~~ computer readable storage medium is run on a computer.

31. (Previously Presented) The apparatus of claim 1, wherein said transform domain watermark data comprises wavelet transform coefficients and said inverse transformer is an inverse wavelet transformer.